32) $P(A \text{ or } B) = P(A) + P(B) - P(A \text{ and } B)$

$P(\text{Sunday or Monday}) = P(\text{Sunday}) + P(\text{Monday}) - P(\text{Sun and Mon})$

$.96 = .84 + .42 - P(\text{Sun and Mon})$

$.96 = .84 + .42 - x$

$.96 = 1.26 - x$

$-1.26 \quad -1.26$

$-.30 = -x$

$.30 = x$ **30%**

33) $P(A \text{ given } B) = \dfrac{P(A \text{ and } B)}{P(B)}$

$P(\text{No shave given less than 5 hrs}) = \dfrac{P(\text{No shave and less than 5 hrs})}{P(\text{less than 5 hrs})}$

$= \dfrac{.65}{.70} = .93$

34) $P(\text{Cats Given Dogs}) = \dfrac{\#(\text{Both})}{\#\text{ Dogs}} = \dfrac{19}{19+24} = \dfrac{19}{43} = .44$

LCD: $(x+7)(x-8)$

35) $\frac{(x-8)3}{(x-8)(x+7)} + \frac{4(x+7)}{(x-8)(x+7)} = \frac{3x-24}{(x-8)(x+7)} + \frac{4x+28}{(x-8)(x+7)} = \boxed{\frac{7x+4}{(x-8)(x+7)}}$

LCD: $28x^2y^3$

36) $\frac{(7y^2)5}{(7y^2)4x^2y} + \frac{3}{14xy^3}\frac{(2x)}{(2x)}$

$\frac{35y^2}{28x^2y^3} + \frac{6x}{28x^2y^3} = \boxed{\frac{35y^2+6x}{28x^2y^3}}$

LCD: $(x+6)(x-2)$

37) $\frac{(x+6)(x-1)}{(x+6)(x-2)} - \frac{x^2+4x-4}{x^2+4x-12}$

$(x+6)(x-2)$

$\frac{x^2+5x-6}{(x+6)(x-2)} - \frac{x^2+4x-4}{(x+6)(x-2)} = \frac{x-2}{(x+6)(x-2)} = \boxed{\frac{1}{x+6}}$

38) $8x^3-27$

$\sqrt[3]{8x^3} = 2x$

$\sqrt[3]{27} = 3$

S O AP

$(2x-3)((2x)^2+(2x)(3)+(3)^2)$

$\boxed{(2x-3)(4x^2+6x+9)}$

39) $3x^3+24$

$3(x^3+8)$

$\boxed{3(x+2)(x^2-2x+4)}$